

5/23

SPUT

DART AEROSPACE LTD	Work Order:	23233 A
Description: Ø3.250 Support	Part Number:	D2940-1
Dwg: D2940 Rev. A1	Qty:	4 <del>12</del>
		Page 1 of 1

RF  
03.06.09

Step	Location	Procedure	By	Date	Qty
1	DC	Issue Traveller. Blank size makes (2) D2940-1 Dwg not required	RF	05.05.11	12
2	PG	Issue P/O: <u>7008035</u> Description: D6104-007 Material: 17-4 PH SS (AMS 5643 OR AISI 630) as per Dwg D6104 Material release note required. <u>ReuB.</u>	RF	05.05.12	12
3	RG	Receive and Inspect for raw material dimensions. Ensure material release note is attached.	CL	05/05/20	10
4	MS	Turn blank for Haas as per Folio FA079	JG	05/08/16	20
5	QC1	Inspect all dimensions as per Dwg D2940	J.G	05/08/16	20
6	MV	Machine as per Folio FA079	J.L	05.08.25	4
7	MV	Tumble & Deburr	J.L	05.08.25	4
8	QC1	Inspect all dimensions to inspection sheet as per Dwg D2940	J.L	05.08.25	4
9	QC8	Inspect dimensions for second check	En	05/08/25	4
10	FP	Powder Coat White (4.3.5.2) per QSI 005 4.3	FC	05 08 25	4
11	QC3	Inspect Powder Coat	ML	05 08 25	4
12	ST	Identify and stock	DL	05/08/25	4
13	AC	Cost / part <u>127.33</u>	54C	05.08.29	4
14	DC	Close W/O, <u>43.67</u> Inspect Level 21	LD	05/08/29	4

Rev	Date	Change	Revised By	Approved
A	01.01.08	Preliminary Issue	EC	
B	01.08.15	Removed Heat treating	EC	
C	02.11.26	Reformat; Added P/O	KJ	RF

RELEASED  
02/11/29 RF

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: DP Date: 05/28/29

NOTE: Date &amp; initial all entries

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

DART AEROSPACE LTD		Work Order: 23233
Description: Ø 3.250 support		Part Number: A 2940-1
Inspection Dwg: A2940	Rev: A1	Page 1 of 1

### FIRST ARTICLE INSPECTION CHECKLIST

☐ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
AA .250	± .010	.250	✓			
AB .500	± .010	.500	✓			
AC .150	± .010	.155	✓			
AD 3.520	± .010	3.525	✓			
AE 1.653	± .020	1.658	✓			
AF 1.503	± .010	1.502	✓			
AG .050	± .010	.046	✓			
AH Ø.188	+ .005 - .001	.190	✓			
AI .150	± .010	.146	✓			
AJ 2.528	± .010	2.528	✓			
AK .050	± .010	.049	✓			
AL .010	± .010	.010	✓			
AM .150	± .010	.150	✓			
AN .400	± .050	.425	✓			
AO .250	± .010	.250	✓			
AP .160	± .010	.160	✓			
AQ .063	± .010	.063	✓			
AR 103.64	± 2		✓			
AS Ø.257	+ .005 - .001	.259	✓			
AT .063	± .010	.063	✓			
AU 4.128	± .010	4.127	✓			

Measured by: J.L	Audited by: E	Prototype Approval: CP
Date: 05.08.23	Date: 05.08.23	Date: 05.08.23

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/RF	

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	<b>23233</b>
<b>Description:</b> Ø3.250 Support		<b>Part Number:</b>	<b>D2940-1</b>
<b>Inspection Dwg:</b> D2940 Rev. A1		<b>Page 1 of 1</b>	

Inspect dimensions highlighted on inspection sheet drawing D2940 Rev. A1/ DSK081 Rev. B & record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	By	Date
Lathe Section									
A	3.211	3.216		3.213	3.213	3.214	3.214		
B	4.946	4.966		4.956	4.959	4.956	4.956		
C	0.718	0.738		0.728	0.728	0.728	0.728		
D	0.090	0.110		0.110	0.107	0.110	0.110		
E	3.564	3.584		3.575	3.574	3.574	3.574		
F	0.022	0.042		0.032	0.032	0.032	0.032		
G	3.444	3.464		3.454	3.454	3.454	3.454		
H	0.112	0.132		0.121	0.121	0.120	0.121		
I	2.170	2.190		2.181	2.182	2.182	2.182		
J	4.451	4.471		4.460	4.460	4.459	4.459		
K	0.413	0.433		0.423	0.423	0.422	0.423		
L	0.913	0.933		0.923	0.923	0.924	0.922		
M									
N									
HAAS Section									
AA	0.240	0.260		.250	.250	.250	.250		
AB	0.490	0.510		.500	.500	.500	.500		
AC	0.140	0.160		.150	.152	.150	.151		
AD	3.510	3.530		3.521	3.522	3.522	3.526		
AE	1.633	1.673		1.657	1.657	1.657	1.657		
AF	1.493	1.513		1.503	1.500	1.501	1.501		
AG	0.040	0.060		.049	.051	.050	.050		
AH	0.188	0.193	DT8706						
AI	0.140	0.160		.147	.148	.147	.147		
AJ	2.518	2.538		2.528	2.528	2.528	2.528		
AK	0.040	0.060		.049	.048	.048	.048		
AL	0.010	0.020		.010	.010	.010	.010		
AM	0.140	0.160		.151	.148	.150	.149		
AN	0.350	0.450		.425	.425	.425	.425		
AO	0.240	0.260		.250	.250	.250	.250		
AP	0.150	0.170		.156	.155	.155	.155		
AQ	0.053	0.073		.063	.063	.063	.063		
AR	101.64	105.64	DT8698						
AS	0.257	0.262	DT8683						
AT	0.053	0.073		.063	.063	.063	.063		
AU	4.118	4.138		4.127	4.127	4.127	4.127		
AV									
AW									
Accept/Reject									

Measured by:	<b>S.G.</b>	<b>J.L.</b>
Date:	<b>05/08/19</b>	<b>05.08.24</b>

Audited by:	<b>S.</b>	<b>16</b>
Date:	<b>05/08/16</b>	<b>05.08.24</b>

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	

**RELEASED**  
03.07.01 RF

<b>DART AEROSPACE LTD</b>	<b>Work Order:</b> 23233
<b>Description:</b> Ø3.250 Support	<b>Part Number:</b> D2940-1
<b>Inspection Dwg:</b> D2940 Rev. A1	<b>Page 1 of 1</b>

Inspect dimensions highlighted on inspection sheet drawing D2940 Rev. A1/ DSK081 Rev. B & record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	15	16	17	18	By	Date
<b>Lathe Section</b>									
A	3.211	3.216		3.211	3.216	3.216	3.215		
B	4.946	4.966		4.955	4.956	4.958	4.957		
C	0.718	0.738		0.728	0.727	0.728	0.727		
D	0.090	0.110		0.110	0.110	0.110	0.110		
E	3.564	3.584		3.574	3.575	3.575	3.576		
F	0.022	0.042		0.032	0.032	0.032	0.032		
G	3.444	3.464		3.454	3.455	3.454	3.455		
H	0.112	0.132		0.121	0.121	0.121	0.121		
I	2.170	2.190		2.181	2.182	2.182	2.182		
J	4.451	4.471		4.460	4.461	4.460	4.460		
K	0.413	0.433		0.422	0.423	0.424	0.423		
L	0.913	0.933		0.923	0.924	0.924	0.923		
M									
N									
<b>HAAS Section</b>									
AA	0.240	0.260							
AB	0.490	0.510							
AC	0.140	0.160							
AD	3.510	3.530							
AE	1.633	1.673							
AF	1.493	1.513							
AG	0.040	0.060							
AH	0.188	0.193	DT8706						
AI	0.140	0.160							
AJ	2.518	2.538							
AK	0.040	0.060							
AL	0.010	0.020							
AM	0.140	0.160							
AN	0.350	0.450							
AO	0.240	0.260							
AP	0.150	0.170							
AQ	0.053	0.073							
AR	101.64	105.64	DT8698						
AS	0.257	0.262	DT8683						
AT	0.053	0.073							
AU	4.118	4.138							
AV									
AW									
<b>Accept/Reject</b>									

Measured by: J.G.
Date: 05/08/16

Audited by: En
Date: 05/08/16

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	

**RELEASED**  
03.07.01 RF

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	<b>23233</b>
<b>Description:</b> Ø3.250 Support		<b>Part Number:</b>	<b>D2940-1</b>
<b>Inspection Dwg:</b> D2940 Rev. A1		<b>Page 1 of 1</b>	

Inspect dimensions highlighted on inspection sheet drawing D2940 Rev. A1/ DSK081 Rev. B & record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	19	10	3	4	By	Date
<b>Lathe Section</b>									
A	3.211	3.216		3.214	3.216				
B	4.946	4.966		4.955	4.954				
C	0.718	0.738		0.728	0.727				
D	0.090	0.110		0.110	0.110				
E	3.564	3.584		3.575	3.574				
F	0.022	0.042		0.032	0.032				
G	3.444	3.464		3.455	3.454				
H	0.112	0.132		0.121	0.121				
I	2.170	2.190		2.182	2.181				
J	4.451	4.471		4.560	4.560				
K	0.413	0.433		0.424	0.423				
L	0.913	0.933		0.922	0.924				
M									
N									
<b>HAAS Section</b>									
AA	0.240	0.260							
AB	0.490	0.510							
AC	0.140	0.160							
AD	3.510	3.530							
AE	1.633	1.673							
AF	1.493	1.513							
AG	0.040	0.060							
AH	0.188	0.193	DT8706						
AI	0.140	0.160							
AJ	2.518	2.538							
AK	0.040	0.060							
AL	0.010	0.020							
AM	0.140	0.160							
AN	0.350	0.450							
AO	0.240	0.260							
AP	0.150	0.170							
AQ	0.053	0.073							
AR	101.64	105.64	DT8698						
AS	0.257	0.262	DT8683						
AT	0.053	0.073							
AU	4.118	4.138							
AV									
AW									
<b>Accept/Reject</b>									

Measured by:	<b>S.G.</b>
Date:	<b>05/08/16</b>

Audited by:	<b>V/A</b>
Date:	

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	<b>[Signature]</b>

**RELEASED**  
03.07.01 RF

# Job Costing Report

Dart Aerospace Ltd.  
Hawkesbury

May 09, 2005  
02:16 pm

Work Order No : 0023233  
Project Name : D2940-1  
Project For : WK523  
Work Order Type : Main  
Main WO Number :  
House Part Number : D2940-1  
Description : Support  
Manufactured : Yes  
Amount Req'd : 1012 u  
Amount Done : 0  
Start Date : 05-09-05  
Est Finish Date : 06-05-05  
Act Finish Date :  
Drawings Req'd : No  
Ok for Approval :  
Approval Rec'd :

Department Code:  
Burden Flags : NNNNNNNN  
WO Status : Open  
Invoice State : Not Invoiced  
Invoice Date :  
Invoice Number :  
Invoice Amount : 0.00  
Order Entry No :  
OE Value : 0.00  
Est Mark Up : 0.000%  
Actual Mark Up : 0.000%  
\$0 Posted to Finished Goods

	Estimated	Actual	Var. %	Posted	To Post
Material Cost :	0.00	0.00	0.00	0.00	0.00
Engineering Hours :	0.00	0.00	0.00		
Engineering Cost :	0.00	0.00	0.00	0.00	0.00
Production Hours :	0.00	0.00	0.00		
Production Cost :	0.00	0.00	0.00	0.00	0.00
Packaging Hours :	0.00	0.00	0.00		
Packaging Cost :	0.00	0.00	0.00	0.00	0.00
OverHead Hours :	0.00	0.00	0.00		
OverHead Cost :	0.00	0.00	0.00	0.00	0.00
CNC Hours :	0.00	0.00	0.00		
CNC :	0.00	0.00	0.00	0.00	0.00
Misc. Hours :	0.00	0.00	0.00		
Misc. :	0.00	0.00	0.00	0.00	0.00
Burden :	0.00	0.00	0.00		
Total Cost :	0.00	0.00	0.00		
Mark up :	0.000	0.000			
Selling Cost :	0.00	0.00			

	Estimated	Actual
Labour Hrs/Amount Done :	0.00	0.00
Profits/(Loss) :	0.00	0.00



GLORIA MATERIAL TECHNOLOGY CORP.

# INSPECTION CERTIFICATE

台南縣新營市新中路35號1樓

1FL, NO.35, HSIN CHUNG RD, HSIN YING,  
TAINAN, TAIWAN, ROC

TEL: (06)6520000

FAX: (06)6520088

Messrs: PROGRESSIVE ALLOY STEEL UNLIMITED L.L.C.

Order No: 2004003262

Grade: 17-4PH

P.O.NO.: 3370

FILE NO: 2004004782-A

Size: 4-1/2"

Date: 11/30/2004

HEAT-Lot No: S2301-40

Weight: 1026.0KG

P'cs: 3

Condition: HF-Solution Annealed-Peeled

## Chemical Composition (wt%)

	C	Si	Mn	P	S	Ni	Cr	Mo	Cu	Nb+Ta
Min.					0.015	3.00	15.00		3.00	0.15
Max.	0.07	1.00	1.00	0.040	0.030	5.00	17.50	0.50	5.00	
Result	0.03	0.36	0.64	0.021	0.023	4.48	15.79	0.13	3.25	

## Mechanical Properties Spec.

	Hardness(1/2R)	Grain Size	$\delta$ -Ferrite	H900-Hardness(Avg)
Spec.Min.				40HRC
Spec.Max.	363HB		5%	47HRC
Result	333HB	7.5	0.64%	45.1HRC

## Tensile Test

	Elongation(A)	Tensile Strength(Rm)	Yield Strength(Rp)	Reduction of Area(Z)
Unit	%	KSI	KSI	%
Min.	10	190	170	40
Max.				
Result	20	210	184	53

## Non-Metallic Inclusions : (AMS 2303C)

	Severity	Frequency
Max.	0.35	0.4
Result	0	0

## Specification:

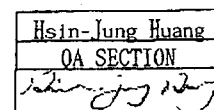
1. ASTM A484M-03a, A564M-04, A370-03a.
2. ASME SA484 (1998), SA564 (1998).
3. AMS 5643Q, 2303C (Magnetic Particle Test).
4. EN 10204/3.1.B.
5. UNS S17400.
6. SAE AMS-H-6875.

Remark:



Our quality and environment management system have been certified by ISO9001 QMS and 14001EMS  
We hereby certify that the material described herein has been manufactured and tested with satisfactory result in accordance with the requirement of  
the above material specification We hereby Inspection Certificate comply with EN10204 3.1.B.

Date: 5-18-05  
Cust: DART Aerospace  
W/O #: 123870  
Qty: 2300 Pos.  
☒ Size ☐ Special Instructions  
☐ Part # ☒ Alloy ☐ Heat Treat  
These test reports are for material shipped  
on your PO# 2008035-10 F5702  
From TIMX Center & Base Sales  
Quality Representative  
Customer Part #







GLORIA MATERIAL TECHNOLOGY CORP.

## INSPECTION CERTIFICATE

台南縣新營市新中路35號1樓  
1FL., NO 35, HSIN CHUNG RD, HSIN YING,  
TAINAN, TAIWAN, ROC

TEL: (06)6520000  
FAX: (06)6520088

Messrs: PROGRESSIVE ALLOY STEEL UNLIMITED L.L.C.

FILE NO: 2004004782-A

Size: 4-1/2"

Date: 11/30/2004

Order No: 2004003262

Grade: 17-4PH

P.O.NO.: 3370

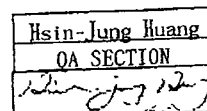
HEAT-Lot No: S2301-40

Weight: 1026.0KG

P'cs: 3

Condition: HF-Solution Annealed-Peeled

1. MANUFACTURING PROCESS: EAF+LHF+VOD, FORGED OR HOT ROLLED.
2. SOLUTION TREATMENT: 1900F FOR 30 MIN/INCH PLUS ONE ADDITIONAL HOUR (MINIMUM ONE HOUR), RAPIDLY COOLED TO BELOW 90F.
3. MATERIAL IS FREE FROM KNOWN CONTACT WITH MERCURY AND RAIUM.
4. MATERIAL IS FREE FROM WELDS OR WELD REPAIRS.
5. ULTRASONIC TEST: OK.
6. MACRO/MICRO OK.
7. MECHANICAL PROPERTIES TESTED AS PER H900 CONDITION.
8. REDUCTION RATION 4:1 MIN
9. FURNACES CALIBRATED TO MIL-H-6875.



Our quality and environment management system have been certified by ISO9001 QMS and 14001EMS.  
We hereby certify that the material described herein has been manufactured and tested with satisfactory result in accordance with requirement of the above material specification. We hereby Inspection Certificate comply with EN10204 3.1 B.

